

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) Apparatus for identifying a time with respect to an event in a scheduling system, the apparatus comprising:

(i) input means for receiving:

(a) event identifying data comprising an identifier for a processable event; and

(b) a fuzzy logic statement associated with the processable event, the fuzzy logic statement identifying a duration and a start time thereof;

(ii) means for storing:

(a) event identifying data; and

(b) temporal preference information associated with said event identifying data;

(iii) means arranged to access a temporal schedule which stores associated allocated times in respect of at least one previously allocated event;

(iv) processing means for:

(a) applying a predetermined fuzzy function to convert a received fuzzy logic statement into temporal preference information; and

(b) reviewing temporal preference information corresponding to the at least one previously allocated event, together with the temporal preference information for the processable event in order to identify an available time for the processable event in the temporal

schedule that satisfies the temporal preference information  
corresponding to both of the at least one previously allocated event  
and of the processable event.

2. (previously presented) Apparatus according to claim 1, wherein the  
fuzzy logic statement for a processable event describes both or either of:

- (i) a preferred start time for the processable event; and
- (ii) a preferred duration for the processable event.

3. (previously presented) Apparatus according to claim 1, wherein the  
temporal preference information for a processable event comprises preference values  
associated with different respective start times.

4. (previously presented) Apparatus according to claim 1, wherein the  
fuzzy logic statement for a processable event describes both or either of:

- (i) a period in a single day; and
- (ii) a period that extends over a plurality of days.

5. (previously presented) Apparatus according to claim 1, wherein the  
apparatus further comprises monitoring means for monitoring the temporal schedule and  
alerting means for outputting an alert signal in the event that available time in the  
temporal schedule conflicts with said temporal preference information.

6. (previously presented) Apparatus according to claim 1, wherein start times and durations are identified for two or more processable events.
7. (original) Apparatus according to claim 6 wherein the input means further receives constraint information describing constraints between at least two events.
8. (original) Apparatus according to Claim 7, wherein at least two events comprise at least one processable event.
9. (previously presented) Apparatus according to claim 1, wherein the means for storing is arranged to store constraint information.
10. (previously presented) Apparatus according to claim 9, wherein said processing means reviews said stored constraint information together with constraint information received in respect of the processable event, in order to identify an available time for the processable event that satisfies both types of constraint information.
11. (previously presented) Apparatus according to claim 1, wherein the processable event is a meeting.
12. (previously presented) Apparatus for scheduling a meeting between two entities, including a plurality of apparatus according to claim 1.

13. (previously presented) Apparatus according to claim 1, wherein the input means is both or either of:

- (i) a graphical user interface operable to receive fuzzy logic statements via the keyboard; and
- (ii) a speech interface operable to receive fuzzy logic statements via a speech synthesizing system.

14. (currently amended) A method of ~~operating a data processing apparatus to allocate~~ allocating a time with respect to an event in a scheduling system, the method being performed on a data processing apparatus and comprising the steps of:

- (i) identifying a processable event;
- (ii) ~~inputting~~ receiving a fuzzy logic statement associated with the processable event, the fuzzy logic statement identifying a duration and a start time thereof;
- (iii) converting the fuzzy logic statement into temporal preference information associated with the processable event in accordance with a predetermined fuzzy function;
- (iv) storing in a memory associated with the data processing apparatus:
  - (a) event identifying data;
  - (b) temporal preferences associated with the event identifying data;and
- (v) accessing a temporal schedule for storing allocated times in respect of at least one previously allocated event; and

- (vi) reviewing temporal preference information corresponding to the at least one previously allocated event, together with the temporal preference information for the processable event to identify an available time for the processable event in the temporal schedule that satisfies the temporal preference information corresponding to both the at least one previously allocated event and the processable event.

15. (previously presented) A method according to claim 14, in which the temporal preference information associated with the processable event includes a plurality of durations, and preference values as a function of those durations, when the fuzzy logic statement describes the duration of the processable event.

16. (previously presented) A method according to claim 14, in which the temporal preference information includes a plurality of different start times, and preference values as a function of those start times, when the fuzzy logic statement describes the start time of an event.

17. (previously presented) A method according to claim 15, in which the reviewing step (vi) includes the steps of:

- (a) removing any event stored in the temporal schedule from the temporal schedule;

- (b) allocating a start time and duration to the processable event, which allocated start time and duration maximise the preferences corresponding to the processable event;
- (c) allocating start times and durations to the stored events until all of the stored events have been re-entered into the temporal schedule;
- (d) quantifying preference satisfaction, which preference satisfaction provides a measure of how well the preferences associated with each of the stored events have been satisfied in the allocation of step (c); and
- (e) repeating steps (c) and (d) until the preference satisfactions have been maximised for all events.

18. (previously presented) A method according to claim 15, in which the reviewing step (vi) includes the steps of:

- (a) removing any event stored in the temporal schedule from the temporal schedule;
- (b) organising the processable event and the stored events into an order in accordance with temporal preference information relating to the processable event and to stored temporal preference information; and
- (c) allocating start times and durations to the stored and processable events in accordance with the order.

19. (previously presented) A method according to claim 17, in which, when the temporal preference information for a processable event describes an end time and a duration for the processable event, the reviewing step (vi) includes the steps of:

identifying periods that are unassigned to events stored in the temporal schedule when all of the events have been allocated start times;

comparing the identified periods with the duration of the processable event; and

providing a notification to the user if the duration of the unassigned periods are less than the duration of the processable event.

20. (previously presented) A method of operating a data processing apparatus to allocate time to a processable event according to claim 17 when the processable event is a meeting between a plurality of entities, the method comprising the steps of:

- (a) sending a first preferred time period from the temporal schedule to a further temporal schedule;
- (b) the temporal schedule receiving a second preferred time period from the further temporal schedule, which second preferred time period has been processed to account for stored temporal preference information relating to the further temporal schedule; and
- (c) combining the first and second preferred time periods so as to allocate a time to the meeting that satisfies preferences of the temporal preferences

of temporal preference information relating to the further temporal schedule and the temporal schedule.

21. (original) A method according to claim 20, in which the preferred time period is any one of a week, a day or an hour.

22. (currently amended) A method according to claim 21, in which either or both of:

- (i) the processable event; and
- (ii) the temporal preference information associated with the processable event, is also input into the input means which comprises a graphical user interface via a keyboard.

23. (previously presented) Apparatus according to claim 1, further comprising a plurality of intelligent autonomous systems that help the user with certain computer based tasks.

24. (previously presented) Apparatus according to claim 23, wherein the intelligent autonomous systems include at least some of a diary assistant, an email assistant, a telephone assistant and a web assistant.

25. (original) Apparatus according to claim 24, including means responsive to an input signal indicative of a state of mind of a user.



26. (currently amended) A computer program storage device readable by a computer system, tangibly embodying a program of instructions executed by the computer system to perform a method comprising the steps of:

- (i) identifying a processable event;
- (ii) inputting a fuzzy logic statement associated with the processable event, the fuzzy logic statement identifying a duration and a start time thereof;
- (iii) converting the fuzzy logic statement into temporal preference information associated with the processable event in accordance with a predetermined fuzzy function;
- (iv) storing:
  - (a) event identifying data;
  - (b) temporal preferences associated with the event identifying data;and
- (v) accessing a temporal schedule for storing allocated times in respect of at least one previously allocated event; and
- (vi) reviewing temporal preference information corresponding to the at least one previously allocated event, together with the temporal preference information for the processable event to identify an available time for the processable event in the temporal schedule that satisfies the temporal preference information corresponding to both the at least one previously allocated event and the processable event.

27. (new) Apparatus according to claim 1, wherein the predetermined fuzzy

function is a triangular function.

28. (new) Apparatus according to claim 1, wherein the predetermined fuzzy function is a trapezoidal function.

29. (new) A method according to claim 14, wherein the predetermined fuzzy function is a triangular function.

30. (new) A method according to claim 14, wherein the predetermined fuzzy function is a trapezoidal function.

31. (new) A storage device according to claim 26, wherein the predetermined fuzzy function is a triangular function.

32. (new) A storage device according to claim 26, wherein the predetermined fuzzy function is a trapezoidal function.